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PRC

PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION

SYNTHETIC PRODUCTS COMPANY CLEVELAND, OHIO OHD 077 783 603

FINAL REPORT

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Waste Programs Enforcement
Washington, DC 20460

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EPA Region	:	5
Site No.	:	OHD 077 783 603
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EXECUTIVE SUMMARY

PRC Environmental Management, Inc. (PRC) performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMU) and other areas of concern (AOC) at the Synthetic Products Company (Synpro) facility in Cleveland, Ohio. This summary highlights the results of the PA/VSI and the potential for releases of hazardous wastes or hazardous constituents from SWMUs and AOCs identified. In addition, a completed U.S. Environmental Protection Agency (EPA) Preliminary Assessment Form (EPA Form 2070-12) is included in Attachment A to assist in setting priorities among RCRA facilities for corrective action.

The Synpro facility manufactures metal stearate stabilizers. The stabilizers are used as additives to strengthen plastics, mainly polyvinyl chloride (PVC). The facility generates and manages wastes that contain barium (EPA waste code D005) and cadmium (D006). It occupies approximately one acre in a mixed industrial, commercial, and residential area of Cleveland and employs 55 to 60 people. The facility's regulatory status is that of a conditionally exempt small quantity generator. The facility has operated at its current location since 1950 and has undergone several ownership changes since then. However, it always has been referred to as Synthetic Products. Before 1980, the facility manufactured liquid and powder stabilizers. Liquid stabilizer production was moved to another location in 1980. The facility closed its hazardous waste storage building (SWMU 1) in 1988.

The PA/VSI identified the following 2 SWMUs at the facility:

Solid Waste Management Units

1. Former Hazardous Waste Drum Storage Building
2. Hazardous Waste Drum Storage Area

No AOCs were identified at the facility.

The potential for releases of hazardous wastes or hazardous constituents to ground water from this facility is low. SWMU 1, the former hazardous waste drum storage building, is inactive. The hazardous waste drum storage area (SWMU 2) manages wastes in solid form that are resistant to flow. In addition, SWMU 2 is inside the main manufacturing building.

The potential for release of hazardous ~~wastes or hazardous~~ constituents to air, surface water, or on-site soil from the facility is also low. The former hazardous waste drum storage building (SWMU 1) is inactive. The hazardous waste drum storage area (SWMU 2) manages wastes in solid form and is inside the main manufacturing building.

Receptors of potential releases at the facility include Synpro personnel, nearby residents and light industry workers. Residential areas lie within 200 feet of the facility. A 6-foot chain-link fence, topped by 3 strands of barbed wire, surrounds the facility, limiting access by potential receptors. Ground water in the area is not used for drinking or as an industrial water supply. Sensitive environments include a riverine wetland area along Euclid Creek, located 1.5 miles east of Synpro. Lacustrine wetlands also are located along the eastern shore of Lake Erie 1.75 miles northwest of the facility.

PRC recommends repairing the surface cracks near SWMU 2 and improving the secondary containment for SWMU 2 by either sealing the drain near the SWMU or building a dike or berm around the SWMU. A second option for improving the secondary containment would be to store drums containing hazardous waste in SWMU 1, the former hazardous waste drum storage building, since it was designed for that purpose.

PRC recommends no further action for SWMU 1.

1.0 INTRODUCTION

PRC Environmental Management, Inc. (PRC) received Work Assignment No. C05087 from the U.S. Environmental Protection Agency (EPA) under Contract No. 68-W9-0006 (TES 9) to conduct preliminary assessments (PA) and visual site inspections (VSI) of hazardous waste treatment and storage facilities in Region 5.

As part of the EPA Region 5 Environmental Priorities Initiative, the RCRA and CERCLA programs are working together to identify and address RCRA facilities that have a high priority for corrective action using applicable RCRA and CERCLA authorities. The PA/VSI is the first step in the process of setting priorities among facilities for corrective action. Through the PA/VSI process, enough information is obtained to characterize a facility's actual or potential releases to the environment from solid waste management units (SWMU) and areas of concern (AOC).

A SWMU is defined as any discernible unit at a RCRA facility in which solid wastes have been placed and from which hazardous constituents might migrate, regardless of whether the unit was intended to manage solid or hazardous waste.

The SWMU definition includes the following:

- RCRA-regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injection wells
- Closed and abandoned units
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents. Such areas might include a wood preservative drippage area, a loading-unloading area, or an area where solvent used to wash large parts has continually dripped onto soils.

An AOC is defined as any area where a release to the environment of hazardous waste or constituents has occurred or is suspected to have occurred on a nonroutine and nonsystematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

The purpose of the PA is as follows:

- Identify SWMUs and AOCs at the facility.
- Obtain information on the operational history of the facility.
- Obtain information on releases from any units at the facility.
- Identify data gaps and other informational needs to be filled during the VSI.

The PA generally includes review of all relevant documents and files located at state offices and at the EPA Region 5 office in Chicago.

The purpose of the VSI is as follows:

- Identify SWMUs and AOCs not discovered during the PA.
- Identify releases not discovered during the PA.
- Provide a specific description of the environmental setting.
- Provide information on release pathways and the potential for releases to each medium.
- Confirm information obtained during the PA regarding operations, SWMUs, AOCs, and releases.

The VSI includes interviewing appropriate facility staff; inspecting the entire facility to identify all SWMUs and AOCs, photographing all visible SWMUs; identifying evidence of releases; initially identifying potential sampling parameters and locations, if needed; and obtaining all information necessary to complete the PA/VSI report.

This report documents the results of a PA/VSI of the Synthetic Products Company (Synpro) facility in Cleveland, Ohio. The PA was completed on March 3, 1992. PRC gathered and reviewed information from Ohio EPA northeast district and central offices and from EPA Region 5 RCRA files. The VSI was conducted on April 20, 1992. It included interviews with a Synpro facility representative and a walk-through inspection of the facility. Two SWMUs and no AOCs were identified at the facility.

PRC completed EPA Form 2070-12 using information gathered during the PA/VSI. This form is included in Attachment A. The VSI is summarized and seven inspection photographs are included in Attachment B. Field notes from the VSI are included in Attachment C.

2.0 FACILITY DESCRIPTION

This section describes the facility's location, past and present operations (including waste management practices), waste generating processes, history of documented releases, regulatory history, environmental setting, and receptors.

2.1 FACILITY LOCATION

The Synthetic Products Company (the facility or Synpro) is located at 1636 Wayside Road, Cleveland, Cuyahoga County, Ohio (latitude 41°33′19″ N, longitude 81°33′37″ W) as shown in Figure 1. The facility occupies approximately one acre in a mixed industrial, commercial, and residential area.

The facility is bordered on the northwest by Norfolk and Western railroad tracks and another Synpro facility (1000 Wayside Road), on the west by the Norfolk and Western railroad tracks, London Road, and light industry, on the south by residences, and on the east by residences and light industry.

2.2 FACILITY OPERATIONS

The facility has been at its current location since 1950 and employs about 55 to 60 people. From 1950 to about 1980, the facility manufactured liquid, powder, and stearate stabilizers. The stabilizers were used as additives to strengthen plastics, mainly polyvinyl chloride (PVC). Manufacturing of liquid stabilizers was discontinued at the facility and moved to another location in 1980. The facility currently consists of one manufacturing building that houses the process lines. Two of the process lines produce barium and cadmium stearates. This process generates wastes containing barium (D005) and cadmium (D006). Raw materials for the production process include metal hydroxides in powder form that come in 50-pound or 25-pound sacks and liquid stearic acid. The stearic acid is delivered by tank trucks and stored in tanks outside the main manufacturing building. The process is a batch operation that is essentially an acid-base reaction. A metal base (for example, barium hydroxide) is mixed with heated stearic acid to form a metal stearate. The reaction takes place in an open kettle.

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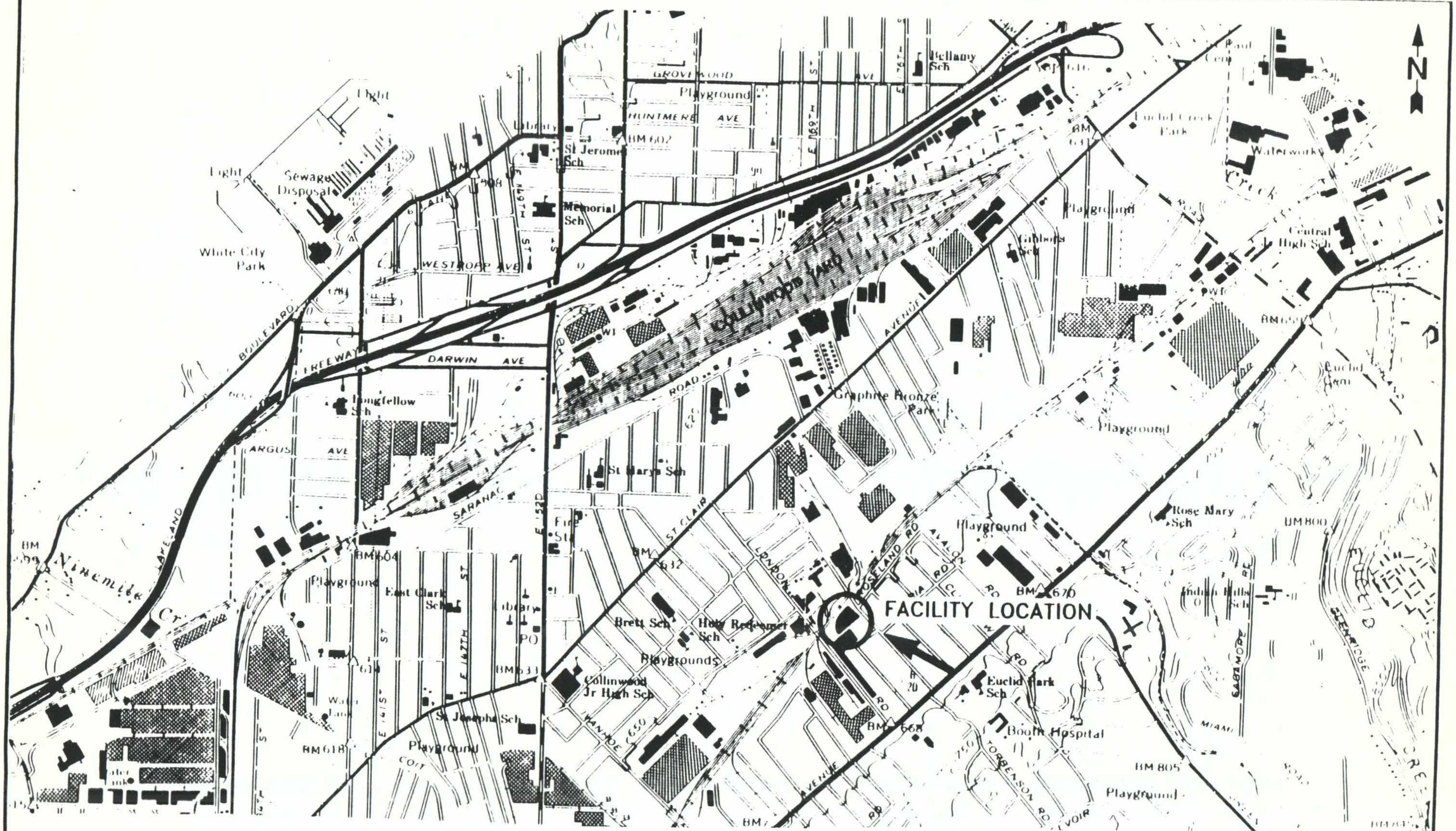

SCALE 1: 24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

SCALE: 1" = 2,000'

SOURCE: MODIFIED FROM USGS, 1979

Synthetic Products Co., Cleveland, Ohio

FIGURE 1
FACILITY LOCATION

PRC ENVIRONMENTAL MANAGEMENT, INC.

Cadmium stearate is made in a 750-gallon kettle. After the cadmium stearate has been formed, it is flaked onto a belt conveyor, where it dries and collects in a hopper. The product is then ground into a fine powder and packaged for shipment.

Barium stearate is made in a 7,000-gallon kettle. Barium monohydrate (dried barium hydroxide) is mixed with water to form a barium hydroxide solution. The barium hydroxide solution is then mixed with hot stearic acid to form the stearate. The product is then filtered through a pressure filter and a rotary vacuum filter, dried, and ground to a fine powder. Wastes generated by these process lines are in solid form and are stored in 55-gallon drums in the hazardous waste drum storage area (SWMU 2). The remaining process lines produce stearates that do not contain either barium or cadmium. All lines are batch processes. The final product is a fine powder. SWMUs at the facility are identified in Table 1. Figure 2 shows the facility layout, including SWMUs.

Plastic Specialties and Technology, Inc. bought this facility in 1985 and the facility's name became Synthetic Products Company. In 1989, the Synthetic Products Company bought the Synthetics Products Company Division of Plastic Specialties and Technologies, Inc. The facility name did not change.

2.3 WASTE GENERATING PROCESSES

The primary wastestreams generated at Synpro are kettle cleanup, filter, and test sample wastes. All other wastes are recycled into the production process. These wastes are generated during the production of stearate stabilizers. Wastes generated at the facility are summarized in Table 2. Annual generation rates are based on 1991 data on generation of hazardous waste.

Hazardous waste containing barium (D005) and cadmium (D006) are generated by the production of barium and cadmium stearates. The process is a batch operation that is essentially an acid-base reaction. A metal base (for example, barium hydroxide) is mixed with heated stearic acid to form a metal stearate. The reaction takes place in an open kettle. Cadmium stearate is made in a 750-gallon kettle. Barium stearate is made in a 7000-gallon kettle. Wastes are generated when the kettles are cleaned or when test samples are run. Waste containing barium also is generated at the filters used in the barium stearate production process. All other wastes are recycled into the process. The waste is stored in 55-gallon drums in SWMU 2, the hazardous waste drum storage area. Floor sweepings are also placed into a 55-gallon drums that are stored in

TABLE 1

SOLID WASTE MANAGEMENT UNITS (SWMU)

SWMU Number	SWMU Name	RCRA Hazardous Waste Management Unit*	Status
1	Former Hazardous Waste Drum Storage Building	Yes	Closed in 1988, Closure approved by OEPA in 1991
2	Hazardous Waste Drum Storage Area	No	Active, less than 90-day storage of hazardous waste

Note:

* A RCRA hazardous waste management unit is one that currently requires or formerly required submittal of a RCRA Part A or Part B application.

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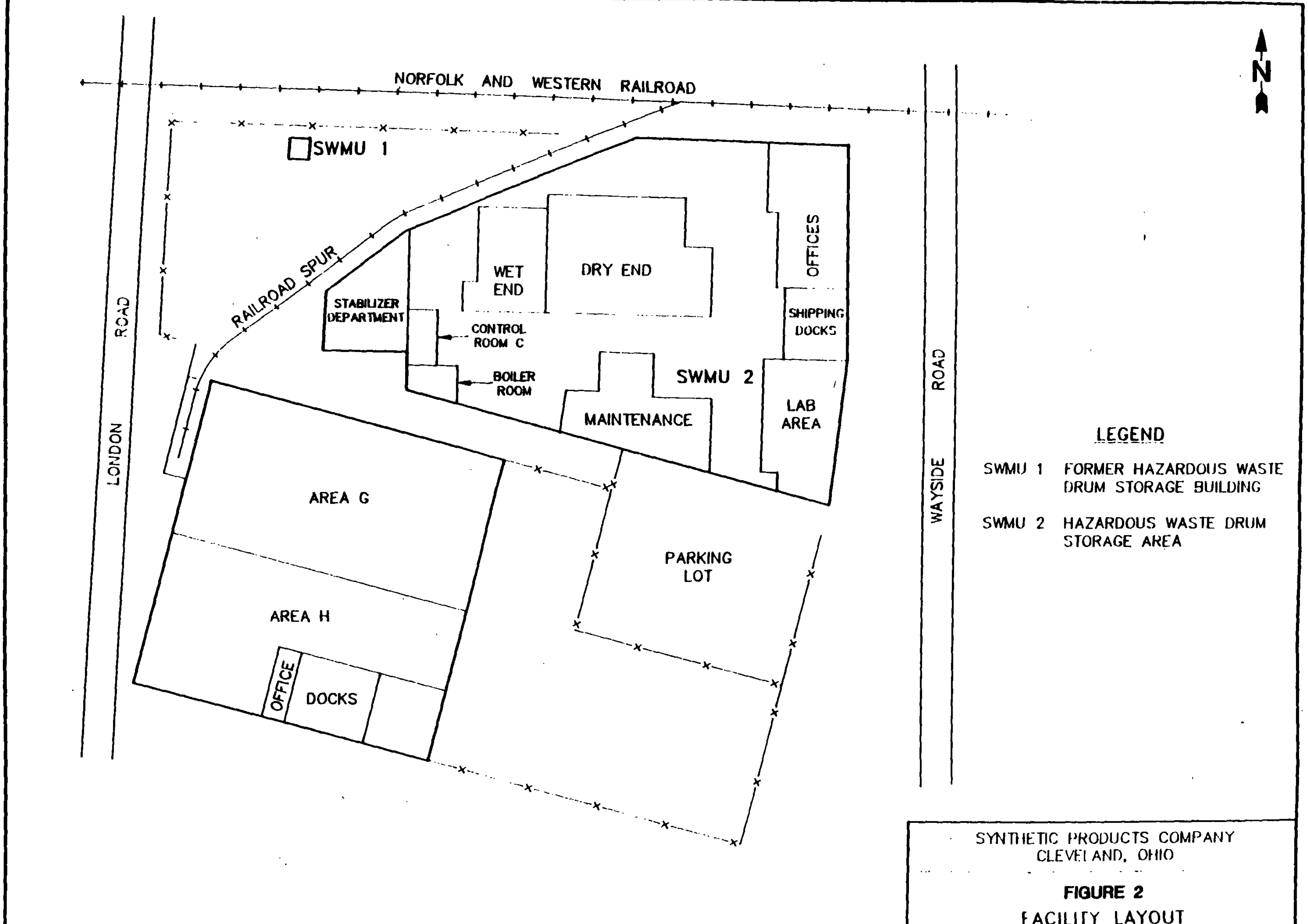


SOURCE: MODIFIED FROM SYNTHETIC PRODUCTS COMPANY SKETCH RECEIVED BY PRC ON APRIL 29, 1992

NOT TO SCALE

SYNTHETIC PRODUCTS COMPANY
CLEVELAND, OHIO

FIGURE 2

FACILITY LAYOUT

PRC ENVIRONMENTAL MANAGEMENT, INC.

TABLE 2
SOLID WASTES

Waste/EPA Waste Code	Source	Primary Management Unit
Solid waste containing barium (D005)	Barium stearate production process	1,2
Solid waste containing cadmium (D006)	Cadmium stearate production process	1,2

Notes:

* Primary management unit refers to a SWMU that currently manages or formerly managed the waste.

SWMU 2. About 25,280 pounds of that waste is generated annually. The waste is transported off site by Chemical Waste Management, Inc. to its disposal facility in Emelle, Alabama.

A scrubber is used to control acid vapors from production of cadmium stearate. The scrubber removes acid odors generated during the production process. Wastewater from the scrubber is discharged to the sanitary sewer system. The sanitary sewer system leads to a publicly owned treatment works (POTW) managed by the Northeast Ohio Regional Sewer District. The wastewater is analyzed periodically and has never been found to contain any cadmium or other hazardous constituents (Sundermeyer, 1992).

In the past, 55-gallon drums of barium (D005) and cadmium (D006) wastes were stored in the former hazardous waste drum storage building (SWMU 1). This SWMU was closed in 1988. OEPA approved closure of this unit in 1991.

2.4 HISTORY OF DOCUMENTED RELEASES

There is no history of documented releases to ground water, surface water, air, or on-site soil as Synpro. No evidence of releases was observed during the VSI.

2.5 REGULATORY HISTORY

On August 18, 1980, Dart Industries, Inc. submitted to EPA a notification of hazardous waste activity for Synthetic Products Company, a Division of Dart Industries, Inc. Chemical Groups (Dart Industries, Inc. 1980a). The facility submitted a RCRA Part A permit application on November 14, 1980 (Dart Industries, Inc., 1980b). The application listed the following process codes and capacities: storage in containers S01 (50,000 gallons). The application listed wastes that were EP toxic for barium (D005) and cadmium (D006). These wastes have not been tested using the toxicity characteristic leaching procedure. The Ohio Hazardous Waste Facility Approval Board (HWFAB) granted Dart Industries, Inc. a hazardous waste facility installation and operation permit on November 30, 1981 (HWFAB, 1981). On April 25, 1984, EPA Region 5 granted the facility a final RCRA permit to act as a container storage facility (U.S. EPA, 1984). On January 7, 1985, the facility submitted to OEPA minor permit modifications, reflecting a change in ownership of the facility and minor changes in operating procedures (Synpro 1985a). Plastic Specialties and Technology, Inc. became the facility owner and the facility's name became Synthetic Products Company. On April 15, 1987, OEPA issued the facility a revised hazardous waste installation and operation permit in final form. On August 1, 1988, the law firm of Thompson, Hine, and Flory, acting on behalf of Synthetic Products Company, notified EPA of the purchase by Synthetic Products Company of the Synthetic Products Company Division of Plastic Specialties and Technologies, Inc. (Thompson, Hine, and Flory, 1988a). The facility name in which the permit was held did not change.

On October 6, 1988, Synpro submitted to OEPA a closure plan and a request for withdrawal of its hazardous waste permit (Thompson, Hine, and Flory, 1988b). On July 6, 1989, OEPA notified the facility that the closure plan submitted did not meet the performance standard in Ohio Administrative Code (OAC) rule 3745-66-11 and did not comply with the pertinent parts of OAC rules 3745-66-12 and 3745-66-18. Consequently, OEPA disapproved the closure plan, stating that the plan did not contain the following information: 1) information and drawings regarding the container storage building (SWMU 1); 2) a topographic or county map of the area; 3) a detailed schedule of events; 4) an acceptable closure date; 5) acceptable health and safety measures; 6) acceptable dust control measures; or 7) a soil sampling plan and "clean" standards for contaminated soils (OEPA, 1989a). On October 2, 1989, the facility submitted a revised closure plan (Synpro 1989) that OEPA approved on December 8, 1989 (OEPA, 1989b). On June 25, 1991, OEPA conducted a postcertification inspection of the hazardous waste drum storage building (SWMU 1) and concluded that closure had been certified properly and that the facility should be classified as a small quantity generator (OEPA, 1991).

In the past, Synpro has had RCRA compliance problems. Inspections conducted between 1981 and 1984 noted violations regarding the facility's waste analysis plan, contingency plan, and weekly inspections of storage containers (OEPA, 1981, 1982, 1984a). An inspection conducted in 1984 also found deficiencies in the financial responsibility requirements for the facility (OEPA, 1984b). When ownership of the facility changed in 1984, the facility did not obtain liability insurance or establish financial assurances to cover closure costs (EPA, 1984b). Correspondence between OEPA and the facility indicates that the facility failed to comply with financial responsibility requirements (OEPA, 1985a,b,c,d, 1986). As a result of that failure, on July 29, 1987, the Director of OEPA issued a Final Findings and Orders letter stating that the facility did not meet the financial responsibility requirements imposed by OAC rule 3745-66-47 and that Synpro had failed to demonstrate appropriate liability coverage (OEPA, 1987b). Synthetic Products Company did not comply with the Director's Final Findings and Orders and was considered in violation by OEPA (OEPA, 1988a). On September 29, 1988, OEPA notified Synthetic Products Company of impending enforcement action because the facility had failed to comply with the Director's Final Findings and Orders. (OEPA, 1988b). To comply with the order, the facility submitted on October 6, 1988 a closure plan and a request for withdrawal of its hazardous waste permit (Thompson, Hine, and Flory, 1988b).

The facility does have an air permit issued by the State of Ohio, Cleveland Division of Air Pollution Control for its co-generation unit for control of particulates and NO_x.

The facility has no history of complaints from area residents about odors.

On January 7, 1992, the Northeast Ohio Regional Sewer District issued to Synpro an industrial user administrative order regulating wastewater discharged from the facility to a publicly owned treatment works (POTW) (Northeast Ohio Regional Sewer District, 1992). The order covered federal pretreatment regulations and effluent limits for several organic and inorganic constituents. The cadmium limit was set at 2 mg/L. No limit was specified for barium. The facility has no history of CERCLA activities.

2.6 ENVIRONMENTAL SETTING

This section describes the climate, flood plain and surface water, geology and soils, and ground water in the vicinity of the Synpro facility.

2.6.1 Climate

The climate in Cuyahoga County is continental. The average daily temperature is 50 degree fahrenheit (°F). The lowest average daily temperature is 27°F in January. The highest average daily temperature is 72°F in July. In summer, northern areas nearest Lake Erie are markedly colder than the rest of the county. The average relative humidity in mid-afternoon is about 60 percent. The total average annual precipitation for the county is 35 inches. The mean annual lake evaporation is about 31 inches (U.S. Geological Survey [USGS], 1978). The 1-year, 24-hour maximum rainfall is 4.0 inches. The prevailing wind is from the southwest. Average wind speed is highest in January at 13 miles per hour from the southwest (U.S. Soil Conservation Service [USSCS], 1980 and National Oceanic and Atmospheric Administration, 1990).

Precipitation is well distributed during the year. Sixty percent of the total annual precipitation usually falls from April to September. Snow squalls are frequent from late fall through winter, and total snowfall normally is heavy. Crop development early in the growing season is slowed by frequent cool winds from Lake Erie. Fall winds that blow from a relatively warm Lake Erie delay the first fall freeze and prolong the growing season for all crops. The average growing season in Cuyahoga County is about 225 days (USSCS, 1980).

2.6.2 Flood Plain and Surface Water

Surface waters at the site drain into a combined sewer system operated by the City of Cleveland; collection drains are located throughout the facility (Synpro, 1985b). Off-site surface waters also drain into this system. The nearest surface water, Euclid Creek, is located approximately 1.5 miles east of the facility and is used for recreational purposes. Euclid Creek discharges to Lake Erie. Lake Erie is located 1.75 miles northwest of the facility. The facility is not located in the 100-year flood plain (USGS, 1974).

2.6.3 Geology and Soils

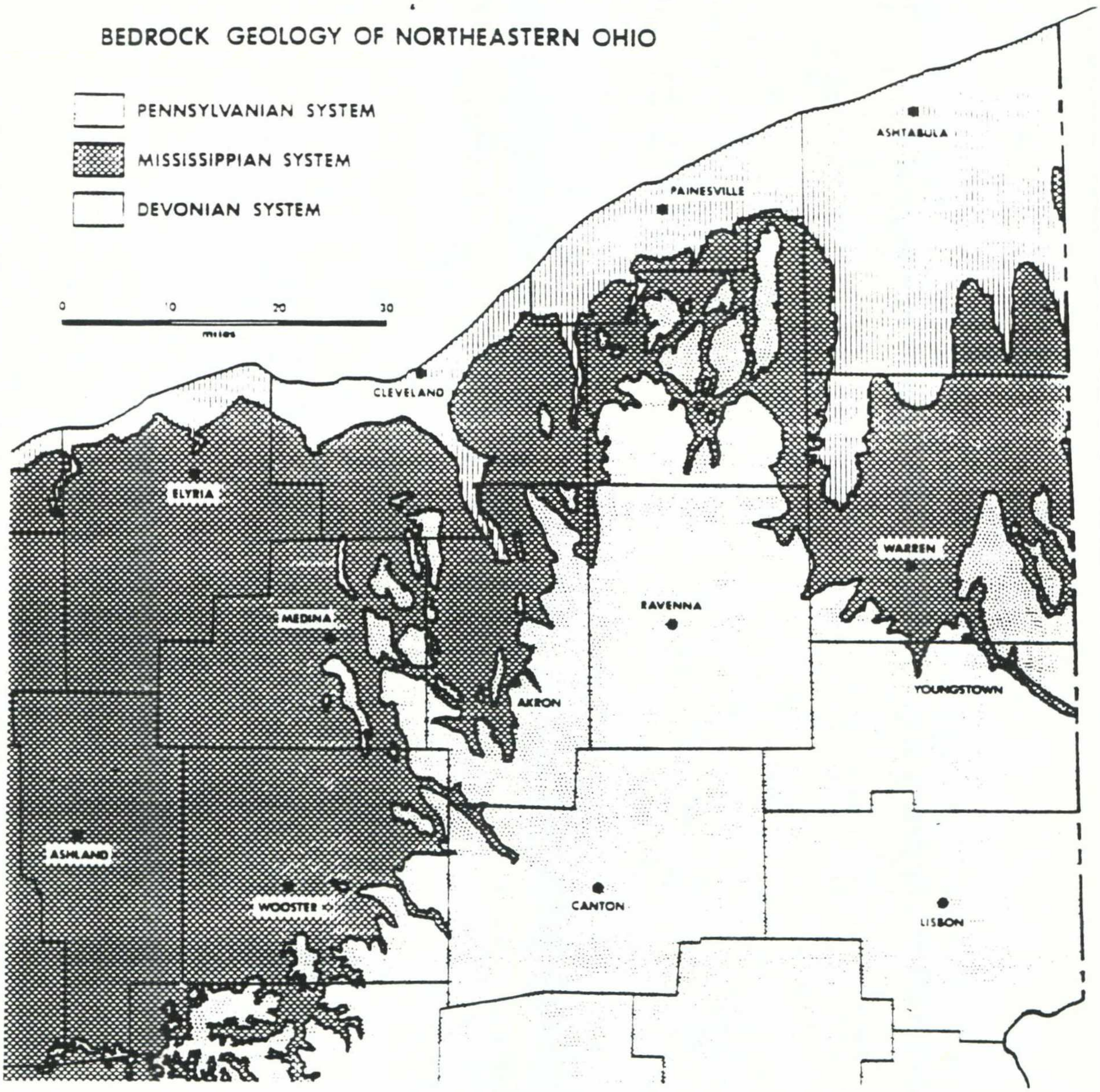
Site-specific geology and soil information is not available; therefore, regional information is presented. Cuyahoga County is located in two physiographic provinces: the glaciated Allegheny Plateau of the Appalachian Plateau Province to the south and east, and the Eastern Lake and Till Plains section of the Central Lowland Province to the west and north. The line of demarcation between the two provinces is the Portage Escarpment, which runs northeast to southwest, just north of Cleveland. Topography in the Allegheny Plateau is characterized by mature river valleys, while the Central Lowland topography is controlled predominately by thick glacial deposits. Bordering Lake Erie is the Lake Plain area, a narrow strip averaging 4 miles in width and composed of lacustrine and beach ridge deposits (Cushing, Leverett and Van Horn, 1931; White, 1982).

Two general classes of deposits exist: glacially derived, unconsolidated deposits of Quaternary age and consolidated sandstone and shale of Paleozoic age. During the Pleistocene epoch of the Quaternary period, several glaciers advanced and retreated in the region. The last glacial advances and retreats during the Wisconsinan stage occurred in two distinct lobes: the Killbuck Lobe to the west and the Cuyahoga Lobe to the east (Cushing, Leverett and Van Horn, 1931; White, 1982). Specific glacial units discussed will not be correlated to a specific lobe because several of the units were synchronous deposits and have the same general characteristics.

Associated with the glacial deposits are glacial outwash deposits of sand and gravel that are located predominately in valleys and on valley sides. The majority of the glacial deposits are heterogenous, and they may contain discontinuous lenses and thin sheets of sand and gravel (White, 1982). Glacial deposits in the area range in thickness from 0 to 300 feet. South of the Lake Plain area, the upper most unit, the Hiram Till, is exposed. The Hiram Till is a clay till that ranges in thickness from 0 to more than 30 feet. The Kent-Navarre Till underlies the previous unit; it is composed of clayey sand and silt that ranges in thickness from 0 to 100 feet. The last Wisconsin age unconsolidated unit in the area is the Mogadore-Millbrook Till, which is also composed of clayey sand and silt (Banks and Feldmann, 1970; White, 1982). Pre-Wisconsinan age tills and outwash deposits unconformably overlie the bedrock in deep depressional surfaces, such as buried bedrock valleys. The Pre-Wisconsinan deposits are discontinuous across northeastern Ohio. These deposits are more than 60 feet thick in parts of Cuyahoga County and provide large quantities of high-grade gravel in the Mill Creek valley (White, 1982).

The bedrock units dip slightly to the south and south-southeast at about 20 feet per mile (Cushing, Leverett and Van Horn, 1931). Devonian age bedrock is exposed in the subcrop and along river valleys along Lake Erie. Bedrock units become progressively younger to the south (Figure 3). The uppermost bedrock unit is the Sharon Conglomerate of the Pottsville Group of Pennsylvanian age. It is approximately 0 to 150 feet thick. Underlying this unit is the Cuyahoga Group of Mississippian age, which is approximately 160 to 425 feet thick and is composed primarily of blue to gray shale, with alternating beds of sandy shale and sandstone. Figure 4 shows these formation as they occur under the Cleveland area (Williams, 1940). Underlying the Cuyahoga Group is the Berea sandstone, which ranges in thickness feet from 5 to 150. The Berea Sandstone overlies the Bedford shale, which is composed of firm-to-soft gray siliceous shale, ranging in thickness from 50 to 90 feet. This formation overlies the Ohio Shale of Devonian age, which is more than 400 feet thick. The Ohio Shale formation is predominately black carboniferous shale, with beds of greenish-gray shale. The Cleveland and Chagrin shales are members of the Ohio Shale formation. Underlying this unit is a series of older Paleozoic era limestones, and sandstones and shales (Cushing, Leverett and Van Horn, 1931; Banks and Feldmann, 1970; White, 1982).

The soil association under the area around the facility is called Urban Land. Urban land consists of nearly level and gently sloping areas that are covered by asphalt, concrete, buildings, and other impervious surfaces, such as parking lots, shopping and business centers, and industrial parks. It occurs mainly in the downtown business district and in corridors along main roads and



Source: Modified from Banks and Feldman, 1970

Synthetic Products Co., Cleveland, Ohio

FIGURE 3
BEDROCK GEOLOGY OF
NORTHEASTERN OHIO

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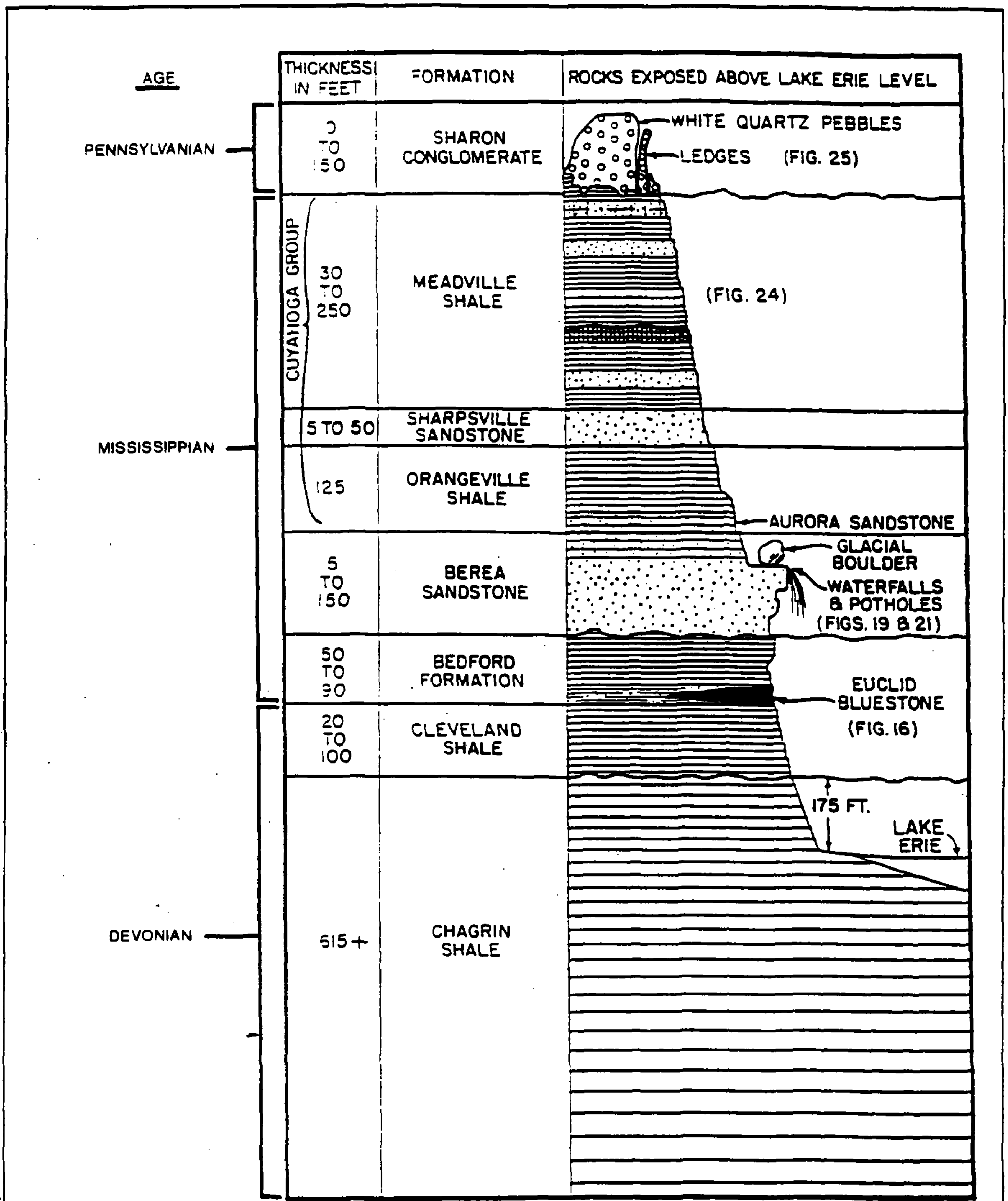

Synthetic Products Co., Cleveland, Ohio

FIGURE 4
REPRESENTATIVE GEOLOGIC CROSS-SECTION OF THE CLEVELAND AREA

PRC ENVIRONMENTAL MANAGEMENT, INC.

WILLIAMS.DWG - 5/19/92 - MLB

SOURCE: MODIFIED FROM WILLIAMS, 1940

streets. This soil association consists of about 80 percent of Urban Land and 20 percent soils of minor extent. Minor soils in these areas are the Mahoning, the Mitwanga, the Elnora, the Oshtemo, and the Allis soils. Some areas contain miscellaneous materials such as dredgings and industrial wastes. Sloping to steep areas are along the Cuyahoga River (USSCS, 1980).

2.6.4 Ground Water

Site-specific ground water information indicates that in certain local areas, the Ohio and Bedford shales underlying this site are completely unproductive of ground water. Generally, however, domestic supplies of 3 to 4 gpm may be developed, although such wells may have to be deeper than wells of corresponding yields in other aquifers (Winslow, 1952). Regionally, the use of ground water in the county is limited to water-bearing formations within the bedrock, alluvial and glacial outwash deposits found mostly in valleys, and, to a lesser extent, sand and gravel lenses and sheets associated with the glacial drift. Existing valleys generally contain thick deposits of sand and gravel from glacial outwash. Wells in these deposits can yield up to 500 gpm. The glacial outwash has an estimated hydraulic conductivity of 10^{-3} to 10^{-1} cm/sec (Bloyd, 1974; Fetter, 1988).

The glacial deposits also may be a source of ground water where the deposits overlie the Ohio Shale, especially where the drift is thick and contains a large percentage of sand (Cushing, Leverett and Van Horn, 1931). The hydraulic conductivity for such aquifers is estimated to be less than 10^{-3} cm/sec. Water-bearing formations within the Paleozoic bedrock include the Sharon Conglomerate and Berea Sandstone. Both aquifers have an estimated hydraulic conductivity greater than 10^{-3} (Bloyd, 1974). The Sharon Conglomerate is reported to have yields as much as 125 gpm, but domestic wells normally yield about 10 gpm. The Berea Sandstone yields as much as 20 gpm to domestic wells and 250 gpm to larger wells (Winslow, 1952). Generally, local ground water flow in shallow glacial aquifers is controlled by surface topography and discharges into nearby rivers or lakes. The regional ground water flow in the bedrock most likely is toward the Appalachian Basin to the south (Bloyd, 1974).

2.7 RECEPTORS

The Synpro facility occupies approximately one acre in a mixed industrial, commercial, and residential area in Cleveland, Ohio. Cleveland has a population of approximately 530,000 (U.S. Department of Commerce, 1988). The facility is bordered on the northwest by railroad tracks and another Synpro facility (1000 Wayside Road), on the west by London Road, railroad tracks, and light industry, on the south by residences, and on the east by residences and light industry. The nearest school, Holy Redeemer School, is located about 0.5 miles west of the facility. Access to the facility is controlled by a fence surrounding the property.

The nearest surface water body, Euclid Creek, is located 1.5 miles east of the facility and is used for recreational purposes. Other surface-water bodies in the area include Lake Erie, which is located 1.75 miles northwest. Ground water is not used as drinking water, or for industrial, agricultural, or municipal water supply. The site has neither injection nor withdrawal wells. No ground-water wells are located within 1,000 feet of the facility (Synpro, 1985b).

There are no sensitive environments on the site. The nearest wetland is a riverine wetland located along Euclid Creek. The wetland is classified by the U.S. Fish and Wildlife Service as a riverine, lower perennial, open water wetland with an intermittently exposed or permanent water regime. There are also several lacustrine wetlands along the eastern shore of Lake Erie. They are classified as lacustrine, littoral, open water or beach and bar wetland with a water regime that is either intermittently flooded and temporary or intermittently exposed and permanent (U.S. Department of Interior, 1977).

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes the 2 SWMUs identified during the PA/VSI. The following information is presented for each SWMU: description of the unit, dates of operation, wastes managed, release controls, history of documented releases, and PRC's observations. Figure 2 shows the SWMU locations.

SWMU 1	**Former Hazardous Waste Drum Storage Building**
Unit Description:	The unit is a single building separated from the manufacturing plant. It is located on the north side of the property and west of the manufacturing building. The building has aluminum siding with a concrete ramp that provides access for a fork lift. The ramp leads to a garage door on the south side of the building. A ramp inside the building descends to the concrete floor. The concrete floor is 30 feet by 30 feet, with a 5-inch concrete berm around the perimeter of the floor. The berm is part of the concrete floor. Consequently, there are no spaces, cracks, or gaps between the floor and the berm. There are two sumps, one on each side of the ramp inside the building. The sumps and berm act as secondary containment. The capacity of the drum storage building is eighty 55-gallon drums or 4,400 gallons. (See Photographs No. 1, No. 2, and No. 3 in Attachment B.)
Date of Startup:	1980
Date of Closure:	The unit was closed in 1988. OEPA approved the facility's certification of closure in 1991.
Wastes Managed:	Wastes containing barium (D005) and cadmium (D006)
Release Controls:	The floor is concrete, with a 5-inch concrete berm around the perimeter. There are no gaps, spaces, or cracks between the berm and the floor. Sumps are located on each side of the ramp leading into the building.
History of Documented Releases:	There is no history of documented releases of hazardous constituents to the ground water, surface water, air, or on-site soil.
Observations:	The building appeared in good condition during the VSI. Small surface cracks were noted in the floor in the vicinity of the sump. During the VSI, no evidence of any release was visible. The building currently is being used to store construction materials (PRC, 1992).

SWMU 2	**Hazardous Waste Drum Storage Area**
Unit Description:	This unit consists of a 20-foot by 5-foot space delineated in the manufacturing building. The unit has a concrete floor and is situated against a concrete wall near the east side of the building. A floor drain that is connected to the sanitary sewer is approximately 15 feet from the storage area. (See Photographs No. 4 and No. 5 in Attachment B.)
Date of Startup:	1988
Date of Closure:	The unit currently is being used to store waste for less than 90 days.
Wastes Managed:	Wastes containing barium (D005) and cadmium (D006).
Release Controls:	The unit is situated on a concrete floor inside a building. If a release occurred, the walls and floor would provide secondary containment. A floor drain that is connected to the sanitary sewer is approximately 15 feet southwest of the unit.
History of Documented Releases:	There is no history of documented releases from this unit to ground water, surface water, air, or on-site soil.
Observations:	The unit appeared in good condition. Small surface cracks were noted in the concrete floor. There was no evidence of any releases noted during the VSI.

4.0 AREAS OF CONCERN

PRC did not identify any AOCs during the PA/VSI. The preliminary assessment did not reveal any specific information on past releases in areas not otherwise identified as SWMUs, and no AOCs were discovered during the VSI.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified two SWMUs at Synpro. Background information on the facility's location, operations, waste generating processes, release history, regulatory history, environmental setting, and receptors is presented in Section 2.0. SWMU-specific information, such as the unit's description, dates of operation, wastes managed, release controls, history of documented releases, and observed condition, is presented in Section 3.0. AOCs are discussed in Section 4.0. Following are PRC's conclusions and recommendations for each SWMU. Table 3 summarizes the SWMUs at the Synpro facility and recommendations for further action.

SWMU 1	**Former Hazardous Waste Drum Storage Building**
Conclusions:	The unit is a 30-foot by 30-foot building separated from the manufacturing plant. The unit was used to store 55-gallon drums of wastes containing barium (D005) and cadmium (D006). The unit was closed in 1988. The potential for releases of hazardous waste or hazardous constituents to the ground water, surface water, air, or on-site soil is low. The potential is low because the unit was closed in 1988 and currently is inactive.
Recommendations:	PRC recommends no further action.
SWMU 2	**Hazardous Waste Drum Storage Area.**
Conclusions:	The unit consists of a 20-foot by 5-foot space delineated in the manufacturing building. The unit currently is being used to store waste for less than 90 days. The potential for releases of hazardous waste or hazardous constituents to the ground water, surface water, air, or on-site soil is low. The potential is low because the wastes managed are in solid form and resistant to flow. The wastes also are stored in drums inside the manufacturing building. However, there is a floor drain near the unit and secondary containment can be improved.
Recommendations:	PRC recommends repairing the surface cracks near SWMU 2. PRC also recommends improving the secondary containment for SWMU 2 by either sealing the drain near the SWMU or building a dike or berm around the SWMU. A second option for improving the secondary containment would be to store drums containing hazardous waste in SWMU 1, the former hazardous waste storage building, since it was designed for this purpose.

RELEASED 4/16/99
DATE 4/16/99
RIN # 639-99
INITIALS MV

ENFORCEMENT CONFIDENTIAL

TABLE 3

SWMU SUMMARY

SWMU	Dates of Operation	Evidence of Release	Recommended Further Action
1. Former Hazardous Waste Drum Storage Building	1980 to 1988	None	No further action at this time.
2. Hazardous Waste Drum Storage Area	1988 to present	None	Seal surface cracks in floor. Seal drain or provide improved secondary containment.

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ATTACHMENT A

EPA PRELIMINARY ASSESSMENT FORM 2070-12

EPA

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	OHD077783603

II. SITE NAME AND LOCATION

01 SITE NAME *(Legal, common, or descriptive name of site)* Synthetics Products Company	02 STREET, ROUTE NO. OR SPECIFIC LOCATION IDENTIFIER 1636 Wayside Road

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Cleveland	OH	44112	Cuyahoga	18	19

09 COORDINATES: LATITUDE 41°33'19"N | LONGITUDE 81°33'37"W

10 DIRECTIONS TO SITE *(Starting from nearest public road)*
Take Euclid Avenue north to Wayside Road. Take a left on Wayside. Facility is on the left.

III. RESPONSIBLE PARTIES

01 OWNER *(if known)* Synthetic Products Company	02 STREET *(Business, mailing residential)* 1000 Wayside Road

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Cleveland	OH	44110	(216) 531-6010

07 OPERATOR *(If known and different from owner)*	08 STREET *(Business, mailing, residential)*

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER

13 TYPE OF OWNERSHIP *(Check one)*
☒ A. PRIVATE ☐ B. FEDERAL: ____________ *(Agency Name)* ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☐ F. OTHER ____________ (Specify) ☐ G. UNKNOWN

14. OWNER/OPERATOR NOTIFICATION ON FILE *(Check all that apply)*
☒ A. RCRA 3010 DATE RECEIVED: 08/18/80 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE *(CERCLA 103 c)* DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE 04/20/92
☐ NO

BY *(Check all that apply)*
☐ A. EPA ☒ B. EPA CONTRACTOR ☐ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: ____________ *(Specify)*

CONTRACTOR NAME(S): PRC Environmental Management, Inc.

02 SITE STATUS *(Check one)*
☒ A. ACTIVE ☐ B. INACTIVE ☐ C.UNKNOWN

03 YEARS OF OPERATION
1950 / present (BEGINNING YEAR ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Hazardous substances found on site include solid wastes containing barium (D005) and cadmium (D006)

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

The potential hazard to environment and/or population is low.

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION *(Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents.)*

☐ A. HIGH *(Inspection required promptly)* ☐ B. MEDIUM *(Inspection required)* ☒ C. LOW *(Inspect on time-available basis)* ☐ D. NONE *(No further action needed; complete current disposition form)*

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF *(Agency/Organization)*	03 TELEPHONE NUMBER
Kevin Pierard	U.S. EPA	(312) 886-4448

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE (MONTH DAY YEAR)
Thomas Sinski		PRC	(703) 556-2811	05/04/92

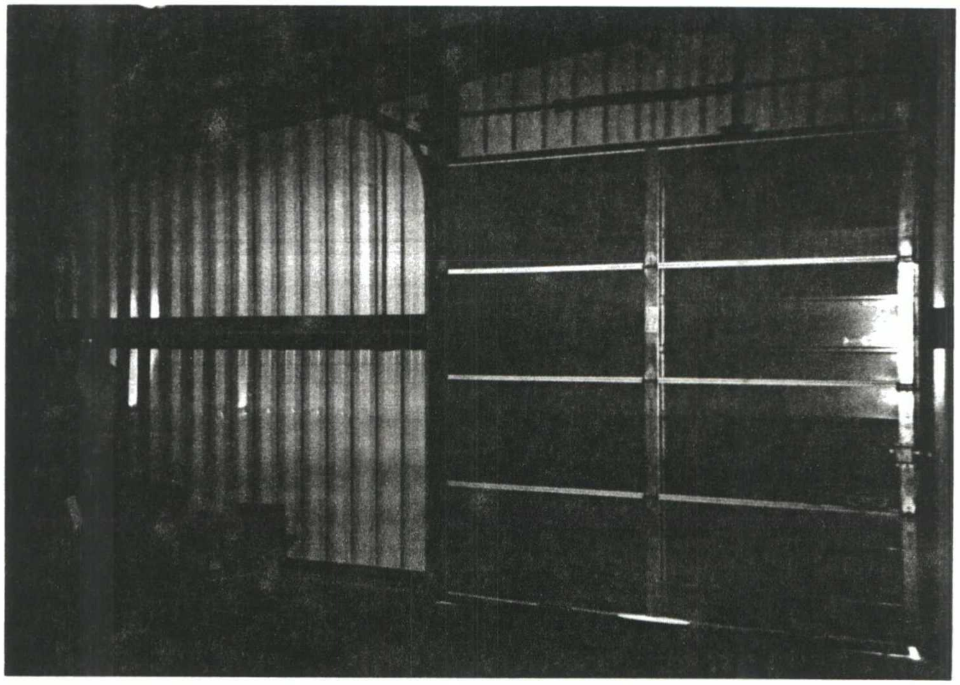
ATTACHMENT B

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPHS

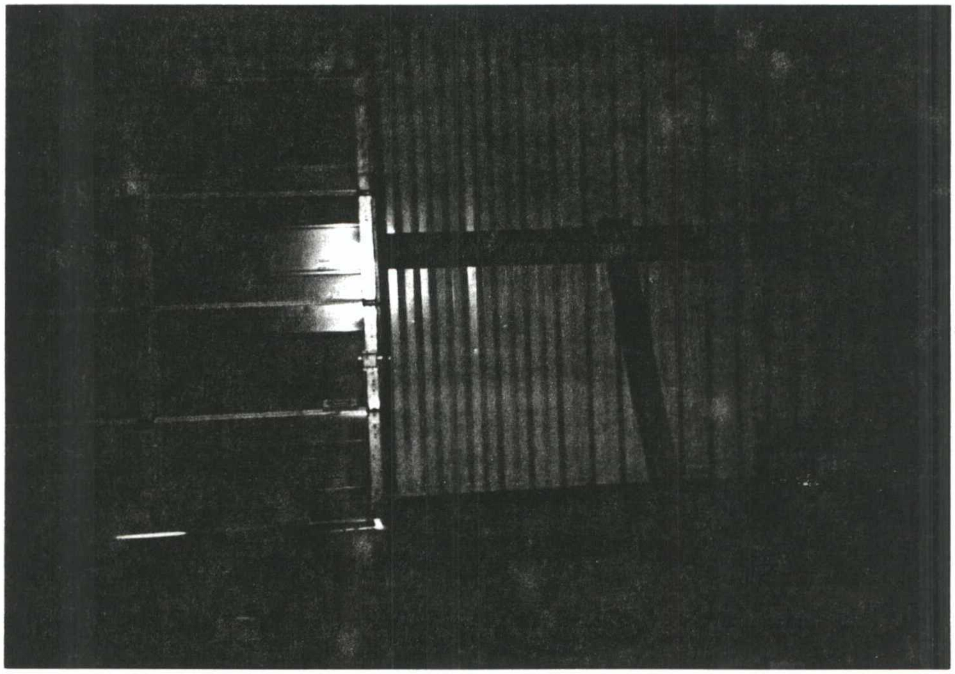
VISUAL SITE INSPECTION SUMMARY

SYNTHETIC PRODUCTS COMPANY
CLEVELAND, OHIO
OHD 077 783 603

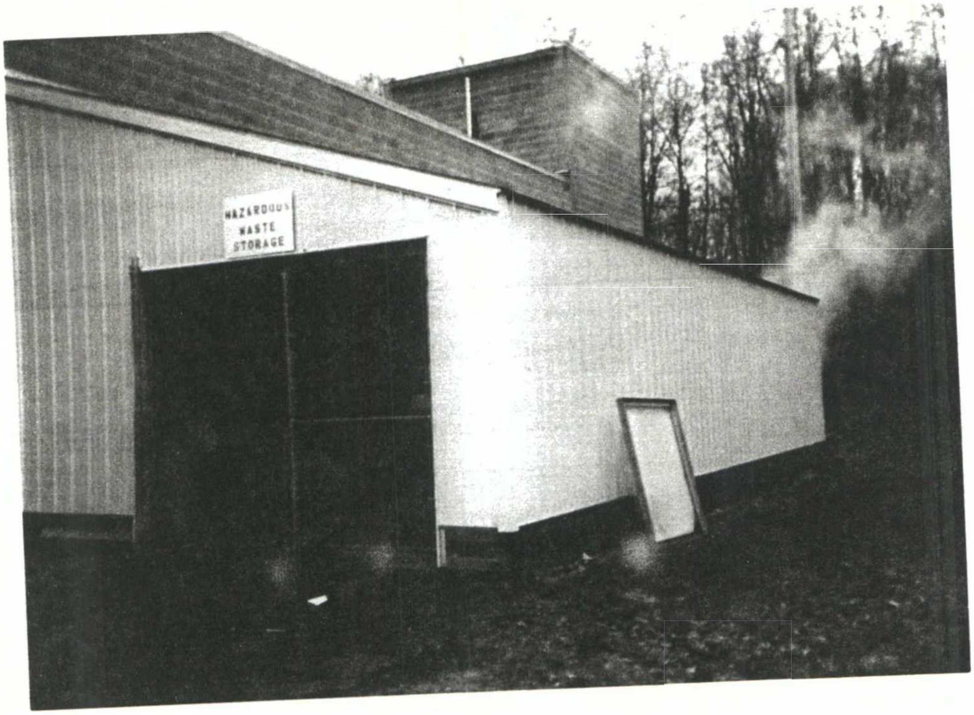
Date:	April 20, 1992
Facility Representatives:	John Sundermeyer, Director of Operations - Cleveland (216) 531-6010
Inspection Team:	Thomas Sinski, PRC Environmental Management, Inc. (PRC) (703)-556-2811 Shoaib Mahmud, PRC (703)-883-8649
Photographer:	Thomas Sinski
Weather Conditions:	Calm, overcast with intermittent rain, temperature approximately 70°F
Summary of Activities:	The visual site inspection (VSI) began at approximately 9:30 a.m. with an introductory meeting. The inspection team discussed the purpose of the VSI and the agenda for the inspection. John Sundermeyer then discussed the facility's past and current operations, solid wastes generation, and release history. Most of the information was exchanged on a question-and-answer format. Mr. Sundermeyer provided the inspection team with copies of the documents requested. The VSI tour began at 10:20 a.m. The current hazardous waste storage area (SWMU 2) was inspected first. The area contained 4 drums. Photographs of SWMU 2 taken during the VSI did not turn out. The pictures of SWMU 2 shown in this report were taken by Mr. Sundermeyer on April 29, 1992. The manufacturing process areas were inspected next. The former hazardous waste storage building (SWMU 1) was inspected last. The storage area was a 30-foot by 30-foot building with aluminum siding and a garage door opening for a fork lift. The floor was concrete with a 5-inch berm around the perimeter. Sumps were located on each side of the entrance ramp inside the building. The building contained construction materials during the VSI. The inspection tour concluded at approximately 11:00 a.m., when the inspection team returned to the office for debriefing. The inspection team left the site at approximately 11:10 a.m.



Photograph No. 1 **Location:** SWMU 1
Orientation: South **Date:** April 20, 1992
Description: The photograph shows the interior of the former hazardous waste drum storage building. The garage door is the fork lift entrance.



Photograph No. 2 **Location:** SWMU 1
Orientation: South **Date:** April 20, 1992
Description: The photograph shows the interior of the former hazardous waste drum storage building. Sump inside the building is shown in the base of the photograph.

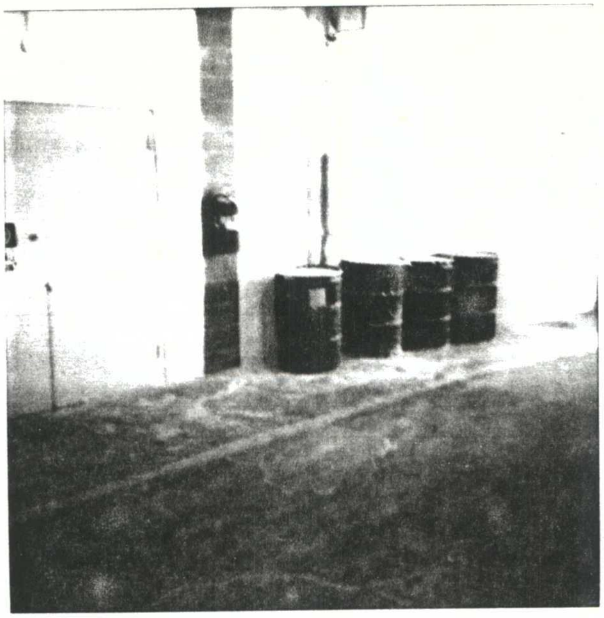


Location: SWMU 1
Date: April 20, 1992

Photograph No. 3
Orientation: North
Description: The exterior of former hazardous waste drum storage building

Location: SWMU 2
Date: April 29, 1992

Photograph No. 4
Orientation: North
Description: Hazardous waste drum storage area



Photograph No. 5
Orientation: South
Description: Hazardous waste storage area

Location: SWMU 2
Date: April 29, 1992

ATTACHMENT C

VISUAL SITE INSPECTION FIELD NOTES

BRILEY CITY [illegible] (2)

1/20/92

(93) TOM SINSKI + SIMON HAMMOND

ARRIVE ON SITE … SYNTHETIC PRODUCTS.

0940 CONTACT: JOHN SCHAEFFER (J.S)

PURPOSE EXPLAINED TO J.S; PURPOSE

OF UST FILLED FOR [illegible] SAND:

REPLACED ON 1987

CURRENT CADMIUM [illegible] [illegible] LIQUID STABILIZERS DISCONTINUED IN 1980

EXIT TO TURN OFF [illegible] OF CAR.

0945: LIQUID STABILIZER - [illegible] [illegible].

POWDERED STABILIZERS [illegible]

STABILIZERS CONTAIN Ba + Cd.

Ca STEARATE, Zn STEARATE [illegible] [illegible]

STEARATE USED AS STABILIZERS

(NON CADMIUM [illegible])

[illegible] 1/20/92

(2)

<u>HISTORY BKGRND.</u> 4/20/92

OPERATIONS STARTUP 1950 (SYN PRODUCTS)

Δ IN OWNERSHIP 3 OR 4 TIMES SINCE ~1978.

1950's | SEMI GLO SIZING + STEARATES. / ALKYD RESIN STAB.

[illegible] OPER DISCONTINUED IN 1980 IN FACILITY.

<u>EMPLOYEE COUNT</u>: ON SITE 55-60 EMPLOYEES

4 SHIFTS A DAY. 12 hr/DAY. 7am-7pm

NON ROTATING SHIFTS

1980 FILED Pt. A.

1984 FILED Pt. B. ~~APPLIC~~ SM

Pt B ISSUED APRIL 25, 1984.

RECEIVED COPY OF Pt. B APPLICATION FROM JOHN S.

APPROXIMATE SIZE OF FACILITY UNKNOWN; ROUGH GUESSTIMATE 1 ACRE - JOHN S.

SM. 4/20/92

(3)

MANUFACT PROCESS (S) 4/20/92

1) <u>Cd Stearate</u> (HAZ WASTE) HEATING STEEL GAS

2) <u>Ba Stearate</u> Ba(OH) + ACID (STEARIC) (HAZARDOUS + [illegible])

SM

OTHER 3 PROCESSES ARE NON HAZARDOUS [illegible] [illegible] STEARATES.

THIS PROCESS IS A BATCH PROCESS

TYPICAL SIZE BATCH 1000 gal. [illegible]

OTHERS 5000-4000 lbs BATCHES.

Cd + Ba WASTES GENERATED FROM PROCESS

WASTE STORED IN DRUMS.

ACID [illegible] [illegible] [illegible].

WASTES GENERATED [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

SAMPLES TESTED [illegible] [illegible] [illegible]

[illegible] WASTE [illegible] [illegible] [illegible]

[illegible]

SM 4/20/92

PROCESS: in relation to Cd + Ba (Manufacturing) (2) 4/24/92

1) 750 gal kettle (open)
2) Add (Steric Acid) H_2O
3) Charge w/ Steric Acid
4) Flake Cd. Stearate on Belt Plate
5) Grind it & Mill & Package
6) Final form in Powder

SM

Drum Storage is located in another bldg Drum Storage Area (Bldg)

Ba Sterate Process:

1) 700 5000 gal kettle
2) Heat Barium BaOH
3) Add Steric Acid
4) Ba Stearate
5) Filter + Dry

Drum Storage Bldg has capacity of 80 Drum

4/24/92 SM

(3)
4/24/92

"Drum Removed by Chem Waste Mgmt Ashville to Dispose of Cd waste in a couple times a year" John S.

"Take 8-10 Drums at a time" J.S.

"Drum Storage being Closed — March 1988" J.S.

J.S. Looking Closure Plan.

"Withdrew Pt B in 1988-9" J.S.

Currently operating as a small qty generator

Other Permits: Permit from NEORSD not to exceed 1 PPM. No reference to Ba or Cd. Issued 8/8/90 (Pre treatment regulations)

Air Permits for particulate emissions only issued by State of Ohio - (Cleveland) Div of Air Pol Control.

4/24/92 SM

(9)
9/2/92

10:19 Tom S. Requests Copies of Discharge Permits (Pre Treatment Permits) Acknowledged by T.S.

1 Permit for Cogeneration Process (Power Generation Facility)

N. Irens

Cogeneration for Electrical Supply + Steam for Facility.

#1 Hazard Dust Explosion T.S. [illegible] not exposed to dust higher than OSHA limits T.S.

10:26 Begin Tour of Facility.

Haz Waste Storage Area. [illegible]

Filling Area (Spill Accum Area)

Drains Present. Drain into Sanitary Sewer

9/2/92

(10)
9/2/92

[illegible]

Photo #1 Drum Filling Area.

Area Drains + Floor Drains Come Together in Same Sewer System.

10:44 Arrive at Haz Waste Storage Bldg. Currently Storing Equipment. Sump Present in Storage Bldg.

Once Oil Process Ceased Bldg Became Somewhat Obsolete.

Bldg Dimensions 30x30.

Concrete Floor w/ Metal Lines w/ Rigid Beams for Support of Cables

Area of [illegible] was cleaned w/ [illegible]. Discovered During Routine Inspection Procedure.

9/2/92

(8)
4/20/92

1051

"WASTE STORED IN GAYLORDS 1 DAY PRIOR TO PICK UP BY CHEM WASTE MGMT." J.S.

PHOTO # 2+3 IN OLD DRUM STORAGE AREA BLDG. (DSAB) - NO LONGER IN USE.

PHOTO # 4+5 VIEW OUTSIDE OF DSAB.

DUST REMOVAL OF SPILLS, IF ANY IN NEW STORAGE AREA. THE DUST CONSIST OF MIXED STEARATE WHICH IS USED AS AN ADDITIVE IN CEMENT. ACTS AS A WATERPROOFING AGENT WHEN MIXED IN A SOLVENT." J.S.

1056 END TOUR OF FACILITY BACK INTO J.S OFFICE TO WRAP UP.

NO FILTRATION SYSTEM FOR AIR W/IN MANUFACTURING AREA.

4/20/92 [initials]

(9)
4/20/92

JUST HAVE FILTRATION SYSTEM TO TRAP PARTICULATES GENERATED DURING PROCESSES.

- WILL RUN 6-8 TIMES A YEAR → CLEAN UP VARYING WASTE TIME AMOUNT OF WASTE GENERATED - ACCUMULATED & REMOVED BY CHEM WASTE MGMT

11:07 - NO OTHER QUESTIONS - WAITING FOR COPIES OF P.S.

11:10 CONCLUDED DEBRIEFING & FACILITY. RECEIVE SEWER PERMITS / RECORDS (CONCLUSION OFF SITE ...)

11:13

[signature] 4/20/92

T.S + S.M. (10)

11:15 Tour Perimeter of Facility 4/20/92

The Facility is Bordered by

A Railroad on the North Side

North

Other Side of Track - Light Industry

Other Synthetic Prod. (1000 Wayside)

East of Wayside; Residences &

Carmosino Orna Iron Works

South is Parking Lot - Residential

Area & Also Whse. E of Synt. Prod

West is Bordered by London Rd

Light Industrial Area - Triblo Inc.

Cam-A-Shield & Anchor Industries

Inc.

11:26 Finish Tour of Perimeter.

SM 4/20/92

(11)

SM 4/20/92

[illegible]

CLEVELAND HILTON SOUTH

(1)

4/30/92 Tom [illegible] and [illegible] [illegible]
9:34 a.m. arrived at Synthetic Products, Dixon
Cloudy with light drizzle, about 70°F.
Met with John [illegible] at 9:37 a.m.

Did have a part B approval around 1987.

9:41 Facility operations:

Metal stearates and liquid stabilizer. Liquid stabilizer moved to another plant in 1980. Metal stearates contain cadmium or barium. Powder stabilizer also used but discontinued around 1980. Stabilizer added to plastics for stabilization. Stabilizers may contain cadmium barium. Calcium stearate, zinc stearate, any stearate is possible for a stabilizer.

9:48. Operations started in 1950 as Synthetic Products. Run by same owner until 1978. 1950's making liquid, powder, and stearate stabilizers. Liquid and powder stabilizer stopped in 1980. Approximately 55-60 employees. 4 shifts 7 days/wks

HILTON OFFICIAL SPONSOR OF THE 1992 U.S. OLYMPIC TEAM USA

6200 Quarry Lane Rockside Road at I-77 Cleveland, Ohio 44131 216/447-1300 Fax 216/642-9334
Reservations 1-800/HILTONS

- 5 - 12

Part A filed 1980. Part B filed around 1984. Part B issued April 25, 1984. ②

Size of site is unknown. Probably be about 1 acre. Facility consists of one building.

5 manufacturing processes. 2 use hazardous cadmium stearates. Heat stearic acid and cadmium. Mix barium monohydrate and water to make barium hydroxide. Add stearic acid. The other 3 processes also use stearic acid but use nonhazardous stearates. Process is batch process. Typically 1000 gallons, other batches are 5000 Lbs. (prior to 1980).

Wastes were cadmium and barium wastes. Stored in drums. Basically an acid base reaction. Most wastes are turned or recycled into product. Wastes (Cd, Ba) generated mostly from cleaning of tanks. Most cleaning waste is recycled into next batch. Waste also consists of samples to be tested.

Open kettle with 4000 gallon of stearic acid

CLEVELAND HILTON SOUTH

3

...nd cadmium oxide. Take the cadmium stearate in a belt flaker, grind it and package it. Final form of a powder.

~~Drum~~ Barium stearate in 7000 gallon open kettle add H_2O and barium monohydrate and stearic acid filter and dry it.

Drum storage is located in an drum storage building. Capacity of 80 drums.

Chem waste management removes the drums. a couple ~~times~~ a year. Typically 8-10 drums per trip.

Obtained Part B in 1984 closed drum storage building in 1988. Couldn't get insurance so they withdrew the Part B.

Now operating as small quantity generator.

HILTON
USA

6200 Quarry Lane Rockside Road at I-77 Cleveland, Ohio 44131 216/447-1300 Fax 216/642-9334
Reservations 1-800/HILTONS

Permit to discharge goes to sewer. No limits on values of cadmium. Issued by POTW. Pretreatment permit. A number of air permits issued by state - office, Cleveland division of air pollution control. Air permits for particulates.

10:11 a.m. Permit for cogeneration plant for NOx. Cogeneration for electric, steam, hot water.

10:21 Tour. Safety hazardous. Dust ~~[illegible]~~ explosion hazardous.

Hazardous waste storage area. 55 gallon drums. ~~[illegible]~~ Collection area inside the building. Concrete floor. ~~With~~ partially sealed drain goes to sanitary sewer. Drums are stored until they can be transferred to a Gaylord container. large paper cart. ~~Some~~ Intermediate bulk packaging.

Cadmium stearate kettle. 750 gallons. Covered with fine white powder. Scrubber connected to the vessel to remove particles and odor.

water from scrubber goes to sanitary sewer. Barium stearate 2 settling. 7500 gallon capacity. Goes through filter after mixing Then dried.

10:38 Barium stearate hold ~~the~~ tanks. Small retention reservoir under the tank.

~~Area~~ Storage site for barium stearate then to a dryer and then packaging.

Old liquid stabilizer area. Discontinued in 1980. Typically mixed a organo-phosphate and ~~some~~ a cadmium stearate. Now used to make non-hazardous products

10:44 Hazardous waste storage building

Ramp with garage door going into an aluminum sided building. Building contained some contruction materials. The drums. Floor did have cracks, did not look like they penetrated

6200 Quarry Lane Rockside Road at I-77 Cleveland, Ohio 44131 216/447-1300 Fax 216/642-9334
Reservations 1-800/HILTONS

Had 2 circular sumps, one on each side of the ramp on the inside.

Current hazardous waste area contains drums that contain powder waste approximately 3 feet by 3 feet.

Concrete floor with approximately 5 inch berm around the perimeter. Berm is connected to the concrete floor.

Spills. One drum leaked into the sumps and was cleaned up. Unknown when it was. Contained barium and cadmium. Discovered during routine inspection.

Current drum storage area. Waste is transferred to bulk containers just ~~#~~ one day prior to shipment by Chem Waste.

10:54 All floor sweepings are returned/recycled as products. John said the facility has never had ~~and~~ any problems with cadmium or barium in water discharge to sewers.

[redacted]

4-20-92 T.L. 7

Floor sweepings also used for concrete additive.

Tour concluded at 10:56 a.m.

Air is filtered in ~~8~~ baghouses to ~~et~~ collect product. There are no air filter or ventilation systems used to clean the ambient air in the manufacturing building. All surface water drains to POTW.

4-20-92 T.L. 8

11:02 Debriefing

Wastes: Cadmium stearate cleanouts, barium stearate scrap and samples and any other spills. Cadmium is run about 6 times a year. Amount of waste generated depends on the types of products produced.

4/20/92
T.L. 9

11:11 Debriefing concluded

[redacted]